Claims

WHAT IS CLAIMED IS:

1.   A computer-implemented method for configuring a management module for use in monitoring operations associated with a computer system, the method comprising:

5   (a) detecting a first component communicatively connected to the management module, wherein the first component senses and provides to the management module operational information relating to operations associated with the computer system;

(b) identifying a type of information that may be provided by the first component;

(c) creating a configuration file specifying the type of information identified for the first

10   component; and

(d) incorporating the configuration file into the management module such that the management module is operable to receive the identified type of information from the first component.

15   2.   A method as defined in claim 1, wherein the management module is operable to communicate with a plurality of components of the computer system by way of a plurality of active slave addresses on a communication medium of the computer system, the plurality of active slave addresses being a subset of a plurality of possible slave addresses communicatively accessible to the management module by way of the communication medium, the detecting act (a) comprising:

20   (a)(i) transmitting a discovery request on each of the plurality of possible slave addresses; and

(a)(ii) responsive to the transmitting act, receiving an acknowledgement response from the first component indicating that the first component is communicatively accessible on a specific active slave address.

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3.   A method as defined in claim 2, wherein the receiving act (a)(ii) comprises:

receiving a plurality of acknowledgement responses from a specific plurality of the plurality of components, each acknowledgement response representing detection of each of the specific plurality of components on one of the plurality of active slave addresses, wherein the first

30   component is one of the specific plurality of components and the specific active slave address is one

of the plurality of active slave addresses on which at least one of the specific plurality of components is detected.

4.   A method as defined in claim 3, wherein the transmitting act (a)(i) comprises:

5   (a)(i)(I) issuing a discovery request on a possible slave address;

(a)(i)(II) after a predetermined period in time has passed from which the discovery request was issued on the slave address, repeating the issuing act until each of the plurality of possible slave addresses have been pinged.

10   5.   A method as defined in claim 4, wherein the detecting act (a) further comprises:

(a)(iii) in response to receiving the acknowledgement responses from each of the specific plurality of components, adding the active slave addresses from which the acknowledgement responses are received to a log file, wherein the log file, when complete, comprises a listing of each of the plurality of active slave addresses.

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6.   A method as defined in claim 5, wherein the identifying act (b) comprises:

(b)(i) traversing the listing in the log file to extract therefrom an active slave address;

(b)(ii) issuing an identification request to the extracted active slave address;

(b)(iii) receiving information from one of the specific plurality of components

20   communicatively accessible on the extracted active slave address; and

(b)(iv) analyzing the received information to identify a type of information that may be provided by the component communicatively accessible on the extracted active slave address.

7.   A method as defined in claim 6, wherein the extracted active slave address is the

25   specific active slave address and the one of the specific plurality of components is the first component.

8.   A method as defined in claim 6, wherein the identifying act (b) further comprises:

(b)(v) repeating the traversing (b)(i), issuing (b)(ii), receiving (b)(iii) and analyzing (b)(iv)

30   act for each of the plurality of active slave addresses included in the listing, wherein the

configuration file is created by the creating act to specify the type of information identified for each of the specific plurality of components such that when the configuration file is incorporated into the management module, the management module is consequently operable to receive the identified types of information from each of the specific plurality of components.

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9. A method as defined in claim 1, further comprising:

(e) defining a plurality of description files, each description file corresponding to a component which may be included within a configuration for the computer system, wherein the plurality of description files each specify a component classification for the component

10 corresponding to each description file and the type of information that may be provided by the component.

10. A method as defined in claim 9, wherein the identifying act (b) comprises:

(b)(i) issuing an identification request on the first slave address, wherein the identification

15 request commands the first component to respond with identification information associated with the first component; and

(b)(ii) receiving the identification information from the first component; and

(b)(iii) analyzing the identification information against the plurality of description files to determine which of the plurality of description files corresponds to the first component.

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11. A method as defined in claim 10, wherein the creating act (c) comprises:

incorporating the description file corresponding to the first component into the configuration file.

25 12. A method as defined in claim 11, wherein the identification request is a standard request operable for commanding all components which may be communicatively connected to the management module to respond with identification information.

13. A method as defined in claim 9, wherein each of the plurality of description files

30 comprise an identification routine executable by the management module to create and transmit an

identification request to components communicatively accessible on slave addresses, wherein the identification request commands the component corresponding to the description file to respond with a specific acknowledgement that the component is communicatively accessible on a particular slave address, the identifying act (b) comprising:

5   (b)(i) extracting one of the plurality of description files; and

(b)(ii) executing the identification routine specified in the extracted description file such that the identification request is transmitted on the first slave address.

14.   A method as defined in claim 13, wherein the identifying act (b) further comprises:

10   (b)(iii) if the specific acknowledgement is received from the first component on the first slave address, linking the first component to the extracted description file.

15.   A method as defined in claim 14, wherein the identifying act (b) further comprises:

(b)(iv) if the specific acknowledgement is not received from the first component within a

15   predetermined period in time, repeating the extracting and executing acts for another one of the plurality of description files until the identification information is received from the first component.

16.   A method as defined in claim 14, wherein the creating act (c) comprises:

incorporating the description file linked to the first component into the configuration file.

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17.   A method as defined in claim 9, wherein the component classification for the first component is sensor and the type of information that may be provided to the management module by the first component is selected from the group consisting of voltages, currents, temperatures, velocity and acceleration.

18. A computer-implemented method for modeling a configuration of components communicatively connected to a management module monitoring operations associated with a computer system, the method comprising:

(a) detecting a plurality of components included in the configuration;

5 (b) identifying a component classification for each of the plurality of detected components; and

(c) creating a graphical representation of the configuration, wherein the graphical representation is displayed on a display device as a collection of graphical user interface icons, wherein a first icon represents the management module and a plurality of other icons represent the

10 plurality of identified components, the plurality of other icons being selected based on the classification identified for each detected component.

19. A method as defined in claim 18, wherein the creating act (c) comprises:

constructing the graphical representation to display a logical connection between each of the

15 plurality of components and the management module.

20. A method as defined in claim 18, wherein the management module is operable to communicate with the plurality of components by way of a plurality of active slave addresses on a communication medium of the computer system, the plurality of active slave addresses being a

20 subset of a plurality of possible slave addresses communicatively accessible to the management module by way of the communication medium, the detecting act (a) comprising:

(a)(i) transmitting a discovery request on each of the plurality of possible slave addresses; and

(a)(ii) responsive to the transmitting act, receiving an acknowledgement response from each

25 of the plurality of components indicating that the plurality of components are communicatively accessible on the plurality of active slave addresses.

21. A method as defined in claim 20, wherein the transmitting act (a)(i) comprises:

(a)(i)(I) issuing a discovery request on a possible slave address; and

(a)(i)(II) after a predetermined period in time has passed from which the discovery request was issued on the slave address, repeating the issuing act until each of the plurality of possible slave addresses have been pinged.

5   22.   A method as defined in claim 21, wherein the detecting act (a) further comprises:

(a)(iii) in response to receiving the acknowledgement responses from each of the specific plurality of components, adding the active slave addresses from which the acknowledgement responses are received to a log file, wherein the log file, when complete, comprises a listing of each of the plurality of active slave addresses.

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23.   A method as defined in claim 22, wherein the identifying act (b) comprises:

(b)(i) traversing the listing in the log file to extract therefrom an active slave address;

(b)(ii) issuing an identification request to the extracted active slave address, wherein the identification request commands one of the plurality of components communicatively accessible on

15   the extracted active slave address to respond with identification information associated therewith; and

(b)(iii) in receipt of the requested identification information, analyzing the identification information to identify the component classification for the component communicatively accessible on the extracted slave address.

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24.   A method as defined in claim 23, wherein the identifying act (b) further comprises:

(b)(iv) repeating the traversing (b)(i), issuing (b)(ii) and analyzing (b)(iii) acts until each of the plurality of detected components are identified.

25   25.   A method as defined in claim 24, further comprising:

(d) defining a plurality of description files, each description file corresponding to a component which may be included within a configuration for the computer system, wherein the plurality of description files each specify a component classification for the component corresponding to each description file.

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26.   A method as defined in claim 25, wherein the analyzing act (b)(iii) comprises:

(b)(iii)(I) evaluating the received identification information against the plurality of description files to determine which of the plurality of description files corresponds to the component communicatively accessible on the extracted slave address; and

5   (b)(iii)(II) linking the extracted slave address to the description file determined to correspond to the component communicatively accessible on the extracted slave address such that the classification of the component is identified based on the linked description file.

27.   A method as defined in claim 26, wherein the identification request is a standard

10   request operable for commanding all components which may be communicatively connected to the management module to respond with identification information.

28.   A method as defined in claim 26, wherein each of the plurality of description files specify a type of information that may be provided by the component corresponding to each

15   description file, the method further comprising:

creating a configuration file to include each of the description files linked to at least one of the plurality of identified components; and

incorporating the configuration file into the management module such that the management module is operable to receive the types of information specified in the included description files.

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29.   A method as defined in claim 25, wherein each of the plurality of description files comprise an identification routine executable by the management module to create and transmit the identification request to the extracted slave address, wherein the identification request for each of the plurality of description files commands the component corresponding to each description file to

25   respond with a specific acknowledgement that the component is communicatively accessible on the extracted slave address, the issuing act (b)(ii) comprising:

(b)(ii)(I) extracting one of the plurality of description files; and

(b)(ii)(II) executing the identification routine specified in the extracted description file such that the identification request is transmitted on the extracted slave address.

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30. A method as defined in claim 29, wherein the analyzing act (b)(iii) further comprises:

(b)(iii)(I) if the specific acknowledgement is received from the component communicatively accessible on the extracted slave address within a predetermined period in time, linking the component to the extracted description file; and

5 (b)(iii)(II) if the specific acknowledgement is not received from the component communicatively accessible on the extracted slave address within a predetermined period in time, repeating the issuing act for another one of the plurality of description files until the specific acknowledgement is received from the component communicatively accessible on the extracted slave address.

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31.   A system for configuring a management module for use in monitoring operations associated with a computer system, the system comprising:

a configuration module operable to detect and identify components that are communicatively accessible to the management module by way of a communication medium of the computer system;

5   a plurality of description files each describing a component which may be communicatively connected to the management module, wherein each of the components detected and identified by the configuration module correspond to one of the plurality of description files; and

means for incorporating the description files corresponding to each of the identified components into a configuration file operable for loading into the management module to provide

10   the management module with an ability to receive operational information from the identified components, wherein the operational information relates to operations associated with the computer system.

32.   A system as defined in claim 31, wherein the management module sends commands

15   to and receives operational information from each accessible component by way of an associated slave address on the communication medium, wherein each slave address associated with an accessible component is an active slave address in set of possible slave addresses on the communication medium.

20   33.   A system as defined in claim 32, wherein the configuration module pings each of the possible slave addresses with a discovery request and subsequently thereafter receives an acknowledgement response from each of the components accessible on the active slave addresses, wherein the acknowledgement responses represent detection by the configuration module of the components.

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34.   A system as defined in claim 33, wherein the configuration module issues identification requests to the detected components on each of the active slave addresses, the identification requests commanding each of the detected components to respond with identification information associated therewith.

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35.   A system as defined in claim 34, wherein the identification requests comprise a standard request operable for commanding all components which may be communicatively connected to the management module to respond with identification information.

5   36.   A system as defined in claim 34, wherein each of the plurality of description files comprise an identification routine executable by the management module to create and transmit the identification request to components communicatively accessible on slave addresses, wherein the identification request commands the component corresponding to the description file to respond with a specific acknowledgement response that the component is communicatively accessible on the

10   active slave address on which the identification request was transmitted.

37.   A system as defined in claim 36, wherein the configuration module executes the identification routine of one of the plurality of description files to effectuate transmission of the identification request on a particular active slave address and subsequently thereafter awaits

15   reception of the specific acknowledgement response requested by the identification request.

38.   A system as defined in claim 37, wherein the configuration module identifies the component detected on the particular active slave address as the component corresponding to the executed description file if the specific acknowledgement response is received within a

20   predetermined period in time, the incorporating means links the executed description file to the particular slave address in the configuration file.

39.   A system as defined in claim 38, wherein the configuration module executes the identification routine of the description file on at least one other active slave address if the specific

25   acknowledgement response is not received from the particular active slave address within a predetermined period in time.

40.   A system as defined in claim 31, further comprising:

a graphical user interface displaying on a display device a graphical representation of the management module and each of the components detected and identified by the configuration module as being communicatively connected to the management module.

5   41.   A system as defined in claim 40, wherein the graphical representation comprises:

a first icon representing the management module;

a plurality of other icons representing the components detected and identified by the configuration module; and

graphical representations of logical connections between the components and the

10   management module.

42.   A system as defined in claim 31, wherein the management module is a baseboard management controller implemented on a baseboard of the computer system.

43.   A system for modeling a configuration of components communicatively connected to a management module monitoring operations associated with a computer system, the system comprising:

a configuration module operable to detect and identify components that are communicatively

5   accessible to the management module by way of a communication medium of the computer system, wherein the components provide the management module with operational information relating to operations of the computer system; and

a graphical user interface displaying on a display device a graphical representation of the management module and each of the components detected and identified by the configuration

10   module as being communicatively connected to the management module.

44.   A system as defined in claim 43, wherein the graphical representation comprises:

a first icon representing the management module;

a plurality of other icons representing the components detected and identified by the

15   configuration module; and

graphical representations of logical connections between the components and the management module.

45.   A system as defined in claim 44, wherein the management module sends commands

20   to and receives operational information from each accessible component by way of an associated slave address on the communication medium, wherein each slave address associated with an accessible component is an active slave address in set of possible slave addresses on the communication medium.

25   46.   A system as defined in claim 45, wherein the configuration module pings each of the possible slave addresses with a discovery request and subsequently thereafter receives an acknowledgement response from each of the components accessible on the active slave addresses, wherein the acknowledgement responses represent detection by the configuration module of the components.

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47.	A system as defined in claim 46, wherein the configuration module issues identification requests to the detected components on each of the active slave addresses, the identification requests commanding each of the detected components to respond with identification information associated therewith, and wherein the identification information is analyzed by the configuration module to identify the a classification for each of the detected components.

48.	A system as defined in claim 47, wherein the classification identified for each of the detected components is used to select each of the plurality of other icons.

49.	A system as defined in claim 43, wherein the management module is a baseboard management controller implemented on a baseboard of the computer system.

50. A computer program product accessible to a computing system and encoding a computer program for executing a computer process for configuring a management module for use in monitoring operations associated with a computer system, the computer process comprising:

(a) detecting a first component communicatively connected to the management module, wherein the first component senses and provides to the management module operational information relating to operations associated with the computer system;

(b) identifying a type of information that may be provided by the first component;

(c) creating a configuration file specifying the type of information identified for the first component; and

(d) incorporating the configuration file into the management module such that the management module is operable to receive the identified type of information from the first component.

51. A computer program product as defined in claim 50, wherein the management module is operable to communicate with a plurality of components of the computer system by way of a plurality of active slave addresses on a communication medium of the computer system, the plurality of active slave addresses being a subset of a plurality of possible slave addresses communicatively accessible to the management module by way of the communication medium, the detecting act (a) comprising:

(a)(i) transmitting a discovery request on each of the plurality of possible slave addresses; and

(a)(ii) responsive to the transmitting act, receiving an acknowledgement response from the first component indicating that the first component is communicatively accessible on a specific active slave address.

52. A computer program product as defined in claim 51, wherein the receiving act (a)(ii) comprises:

receiving a plurality of acknowledgement responses from a specific plurality of the plurality of components, each acknowledgement response representing detection of each of the specific plurality of components on one of the plurality of active slave addresses, wherein the first

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component is one of the specific plurality of components and the specific active slave address is one of the plurality of active slave addresses on which at least one of the specific plurality of components is detected.

5   53.   A computer program product as defined in claim 52, wherein the transmitting act (a)(i) comprises:

(a)(i)(I) issuing a discovery request on a possible slave address;

(a)(i)(II) after a predetermined period in time has passed from which the discovery request was issued on the slave address, repeating the issuing act until each of the plurality of possible slave

10   addresses have been pinged.

54.   A computer program product as defined in claim 53, wherein the detecting act (a) further comprises:

(a)(iii) in response to receiving the acknowledgement responses from each of the specific

15   plurality of components, adding the active slave addresses from which the acknowledgement responses are received to a log file, wherein the log file, when complete, comprises a listing of each of the plurality of active slave addresses.

55.   A computer program product as defined in claim 54, wherein the identifying act (b)

20   comprises:

(b)(i) traversing the listing in the log file to extract therefrom an active slave address;

(b)(ii) issuing an identification request to the extracted active slave address;

(b)(iii) receiving information from one of the specific plurality of components communicatively accessible on the extracted active slave address; and

25   (b)(iv) analyzing the received information to identify a type of information that may be provided by the component communicatively accessible on the extracted active slave address.

56.   A computer program product as defined in claim 55, wherein the extracted active slave address is the specific active slave address and the one of the specific plurality of components

30   is the first component.

57.   A computer program product as defined in claim 55, wherein the identifying act (b) further comprises:

(b)(v) repeating the traversing (b)(i), issuing (b)(ii), receiving (b)(iii) and analyzing (b)(iv)

5   act for each of the plurality of active slave addresses included in the listing, wherein the configuration file is created by the creating act to specify the type of information identified for each of the specific plurality of components such that when the configuration file is incorporated into the management module, the management module is consequently operable to receive the identified types of information from each of the specific plurality of components.

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58.   A computer program product as defined in claim 50, the computer process further comprising:

(e) defining a plurality of description files, each description file corresponding to a component which may be included within a configuration for the computer system, wherein the

15   plurality of description files each specify a component classification for the component corresponding to each description file and the type of information that may be provided by the component.

59.   A computer program product as defined in claim 58, wherein the identifying act (b)

20   comprises:

(b)(i) issuing an identification request on the first slave address, wherein the identification request commands the first component to respond with identification information associated with the first component; and

(b)(ii) receiving the identification information from the first component; and

25   (b)(iii) analyzing the identification information against the plurality of description files to determine which of the plurality of description files corresponds to the first component.

60.   A computer program product as defined in claim 59, wherein the creating act (c) comprises:

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incorporating the description file corresponding to the first component into the configuration file.

61.   A computer program product as defined in claim 60, wherein the identification request is a standard request operable for commanding all components which may be communicatively connected to the management module to respond with identification information.

62.   A computer program product as defined in claim 58, wherein each of the plurality of description files comprise an identification routine executable by the management module to create and transmit an identification request to components communicatively accessible on slave addresses, wherein the identification request commands the component corresponding to the description file to respond with a specific acknowledgement that the component is communicatively accessible on a particular slave address, the identifying act (b) comprising:

(b)(i) extracting one of the plurality of description files; and

(b)(ii) executing the identification routine specified in the extracted description file such that the identification request is transmitted on the first slave address.

63.   A computer program product as defined in claim 62, wherein the identifying act (b) further comprises:

(b)(iii) if the specific acknowledgement is received from the first component on the first slave address, linking the first component to the extracted description file.

64.   A computer program product as defined in claim 63, wherein the identifying act (b) further comprises:

(b)(iv) if the specific acknowledgement is not received from the first component within a predetermined period in time, repeating the extracting and executing acts for another one of the plurality of description files until the identification information is received from the first component.

65.   A computer program product as defined in claim 64, wherein the creating act (c) comprises:

incorporating the description file linked to the first component into the configuration file.

66.   A computer program product as defined in claim 50, wherein the computer program product is a communications medium.

67.   A computer program product accessible to a computing system and encoding a computer program for executing a computer process for modeling a configuration of components communicatively connected to a management module monitoring operations associated with a computer system, the computer process comprising:

5   (a) detecting a plurality of components included in the configuration;

(b) identifying a component classification for each of the plurality of detected components; and

(c) creating a graphical representation of the configuration, wherein the graphical representation is displayed on a display device as a collection of graphical user interface icons,

10   wherein a first icon represents the management module and a plurality of other icons represent the plurality of identified components, the plurality of other icons being selected based on the classification identified for each detected component.

68.   A computer program product as defined in claim 67, wherein the creating act (c)

15   comprises:

constructing the graphical representation to display a logical connection between each of the plurality of components and the management module.

69.   A computer program product as defined in claim 67, wherein the management

20   module is operable to communicate with the plurality of components by way of a plurality of active slave addresses on a communication medium of the computer system, the plurality of active slave addresses being a subset of a plurality of possible slave addresses communicatively accessible to the management module by way of the communication medium, the detecting act (a) comprising:

(a)(i) transmitting a discovery request on each of the plurality of possible slave addresses;

25   and

(a)(ii) responsive to the transmitting act, receiving an acknowledgement response from each of the plurality of components indicating that the plurality of components are communicatively accessible on the plurality of active slave addresses.

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70.   A computer program product as defined in claim 69, wherein the transmitting act (a)(i) comprises:

(a)(i)(I) issuing a discovery request on a possible slave address; and

(a)(i)(II) after a predetermined period in time has passed from which the discovery request

5   was issued on the slave address, repeating the issuing act until each of the plurality of possible slave addresses have been pinged.

71.   A computer program product as defined in claim 70, wherein the detecting act (a) further comprises:

10   (a)(iii) in response to receiving the acknowledgement responses from each of the specific plurality of components, adding the active slave addresses from which the acknowledgement responses are received to a log file, wherein the log file, when complete, comprises a listing of each of the plurality of active slave addresses.

15   72.   A computer program product as defined in claim 71, wherein the identifying act (b) comprises:

(b)(i) traversing the listing in the log file to extract therefrom an active slave address;

(b)(ii) issuing an identification request to the extracted active slave address, wherein the identification request commands one of the plurality of components communicatively accessible on

20   the extracted active slave address to respond with identification information associated therewith; and

(b)(iii) in receipt of the requested identification information, analyzing the identification information to identify the component classification for the component communicatively accessible on the extracted slave address.

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73.   A computer program product as defined in claim 72, wherein the identifying act (b) further comprises:

(b)(iv) repeating the traversing (b)(i), issuing (b)(ii) and analyzing (b)(iii) acts until each of the plurality of detected components are identified.

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74. A computer program product as defined in claim 73, the computer process further comprising:

(d) defining a plurality of description files, each description file corresponding to a component which may be included within a configuration for the computer system, wherein the plurality of description files each specify a component classification for the component corresponding to each description file.

75. A computer program product as defined in claim 74, wherein the analyzing act (b)(iii) comprises:

(b)(iii)(I) evaluating the received identification information against the plurality of description files to determine which of the plurality of description files corresponds to the component communicatively accessible on the extracted slave address; and

(b)(iii)(II) linking the extracted slave address to the description file determined to correspond to the component communicatively accessible on the extracted slave address such that the classification of the component is identified based on the linked description file.

76. A computer program product as defined in claim 75, wherein the identification request is a standard request operable for commanding all components which may be communicatively connected to the management module to respond with identification information.

77. A computer program product as defined in claim 75, wherein each of the plurality of description files specify a type of information that may be provided by the component corresponding to each description file, the method further comprising:

creating a configuration file to include each of the description files linked to at least one of the plurality of identified components; and

incorporating the configuration file into the management module such that the management module is operable to receive the types of information specified in the included description files.

78. A computer program product as defined in claim 74, wherein each of the plurality of description files comprise an identification routine executable by the management module to create

and transmit the identification request to the extracted slave address, wherein the identification request for each of the plurality of description files commands the component corresponding to each description file to respond with a specific acknowledgement that the component is communicatively accessible on the extracted slave address, the issuing act (b)(ii) comprising:

5   (b)(ii)(I) extracting one of the plurality of description files; and

(b)(ii)(II) executing the identification routine specified in the extracted description file such that the identification request is transmitted on the extracted slave address.

79.   A computer program product as defined in claim 78, wherein the analyzing act (b)(iii)
10   further comprises:

(b)(iii)(I) if the specific acknowledgement is received from the component communicatively accessible on the extracted slave address within a predetermined period in time, linking the component to the extracted description file; and

(b)(iii)(II) if the specific acknowledgement is not received from the component
15   communicatively accessible on the extracted slave address within a predetermined period in time, repeating the issuing act for another one of the plurality of description files until the specific acknowledgement is received from the component communicatively accessible on the extracted slave address.

20   80.   A computer program product as defined in claim 67, wherein the computer program product is a communications medium.

81. A computer readable medium having an extensible markup language (XML) data structure stored thereon for use in configuring a management module for use in monitoring operations associated with a computer system based on information provided to the management module by a plurality of components communicatively connected to the management module by

5 way of a plurality of slave addresses accessible to the management module on a communication medium of the computer system, the data structure comprising:

a first tag specifying a specific component for sensing information relating to operations associated with the computer system, wherein the specific component is one of the plurality of components communicatively accessible to the management module by way of one of the plurality

10 of slave addresses; and

a second tag specifying a routine executable by the management module for identifying a specific slave address on which the specific component specified by the first tag is communicatively accessible to the management module.

15 82. A computer readable medium as defined in claim 81, wherein the management module executes the routine specified by the second tag on one or more of the plurality of slave addresses until the specific component is identified on the specific slave address.

83. A computer readable medium as defined in claim 82, wherein the routine, when

20 executed each of the plurality of slave addresses, issues an identification request commanding the component communicatively accessible on the slave address to respond with a specific acknowledgement if the component is the specific component.

84. A computer readable medium as defined in claim 81, wherein the first tag specifies

25 the specific component as being a sensor; the data structure further comprising:

a third tag specifying a type of information that may be provided to the management module by the specific component.

85. A computer readable medium as defined in claim 84, wherein the data structure

30 further comprises:

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a fourth tag specifying a routine executable by the management module for enabling the management module to receive from the specific component and analyze the type of information specified by the third tag.

5   86.   A computer readable medium as defined in claim 81, wherein the computer readable medium is a communications medium.

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